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ABSTRACT

One of a series of performance-based teacher education learning packages focusing upon specific professional competencies of vocational teachers, this learning module deals with using instructional techniques to meet the needs of exceptional students. It consists of an introduction and three learning experiences. Addressed in the first learning experience are the basic principles governing the provision of instruction to students with exceptional needs. The second learning experience involves the identification of instructional techniques and activities appropriate for the exceptional needs students as they are described in given case studies. Special attention is paid to three techniques--remediation, accommodation, and acceleration. In order to complete the final learning experience, students must use these instructional techniques to meet the needs of exceptional students in an actual teaching situation. Each learning experience contains an enabling objective, an overview, one or more learning activities, and a feedback instrument (either a self-check or a teacher performance assessment form). (MN)

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MODULE
L-7

Use Instructional Techniques To Meet The Needs Of Exceptional Students

Module L-7 of Category L—
Serving Students with Special/Exceptional Needs
PROFESSIONAL TEACHER EDUCATION MODULE Series

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FOREWORD

This module is one of a series of 127 performance-based teacher education (PBTE) learning packages focusing upon specific professional competencies of vocational teachers. The competencies upon which these modules are based were identified and verified through research as being important to successful vocational teaching at both the secondary and postsecondary levels of instruction. The modules are suitable for the preparation of teachers and other occupational trainers in all occupational areas.

Each module provides learning experiences that integrate theory and application; each culminates with criterion-referenced assessment of the teacher's (instructor's, trainer's) performance of the specified competency. The materials are designed for use by teachers-in-training working individually or in groups under the direction and with the assistance of teacher educators or others acting as resource persons. Resource persons should be skilled in the teacher competencies being developed and should be thoroughly oriented to PBTE concepts and procedures before using these materials.

The design of the materials provides considerable flexibility for planning and conducting performance-based training programs for preservice and inservice teachers, as well as business-industry-labor trainers, to meet a wide variety of individual needs and interests. The materials are intended for use by universities and colleges, state departments of education, postsecondary institutions, local education agencies, and others responsible for the professional development of vocational teachers and other occupational trainers.

The PBTE curriculum packages in Category L—Serving Students with Special/Exceptional Needs—are designed to enable vocational teachers and other occupational trainers to create learning environments that are accessible, accommodating, and equitable in meeting the instructional needs of individuals in those groups previously denied equal vocational education opportunities. The modules are based upon 380 teacher competencies identified and verified as essential for vocational teachers to meet the special needs of all students in their classes. Included are special populations such as the handicapped, adults pursuing retraining, and students enrolled in programs that are nontraditional for their sex.

Many individuals and institutions have contributed to the research, development, testing, and revision of these significant training materials. Appreciation is extended to the following individuals who, as members of the project technical panel, advised project staff, identified human and material resources, and reviewed draft materials: James B. Boyer, Ken Dieckhoff, Mary M. Frasier, Gerald R. Fuller, Juan Guzman, Jerry Holloway, Barbara Kemp, Jeffrey G. Kelly, Betty Ross-Thomson, Ann Turnham-Smith, and Richard Tyler.

Appreciation is also extended to the approximately 80 vocational teachers and supervisors from throughout the United States who served on the eight DACUM analysis panels that assisted National Center staff in the initial identification of the teacher competency statements. Appreciation is extended, too, to the 80 additional teachers and supervisors from throughout the United States who assisted in the verification of the 380 competencies.

Field testing of the materials was carried out with assistance of field-site coordinators, teacher educators, students, directors of staff development, and others at the following institutions: University of Alabama–Birmingham; Albuquerque Technical-Vocational Institute, New Mexico; University of Central Florida; University of Southern Maine; Maricopa County Community College District, Arizona; Murray State University, Kentucky; University of New Hampshire; SUNY College of Technology–Utica, New York; Temple University, Pennsylvania; Texas State Technical College; Upper Valley Joint Vocational School, Ohio; and Central Washington University.

Special recognition for major individual roles in the development of these materials is extended to the following National Center staff: Lucille Campbell-Thrane, Associate Director, Development Division, and James B. Hamilton, Program Director, for leadership and direction of the project; Lois G. Harrington, Karen M. Quinn, and Michael E. Wonacott, Program Associates, for training of module writers and module quality control; Cheryl M. Lowry, Research Specialist, for developing illustration specifications; Kevin Burke and Barbara Shea for art work; Nancy Lust, Research Specialist, and Wheeler Richards, Graduate Research Associate, for assisting in the coordination of module field testing and data summarization; and Catherine C. King-Fitch, Program Associate, for revision of the materials following field testing. Special recognition is also extended to George W. Smith Jr., Art Director at AAVIM, for supervision of the module production process.

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THE NATIONAL CENTER FOR RESEARCH IN VOCATIONAL EDUCATION
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The National Center for Research in Vocational Education's mission is to increase the ability of diverse agencies, institutions, and organizations to solve educational problems relating to individual career planning, preparation, and progression. The National Center fulfills its mission by:

- Generating knowledge through research.
- Developing educational programs and products.
- Evaluating individual program needs and outcomes.
- Providing information for national planning and policy.
- Installing educational programs and products.
- Operating information systems and services.
- Conducting leadership development and training programs.

AAVIM
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The American Association for Vocational Instructional Materials (AAVIM) is a nonprofit national institute.

The institute is a cooperative effort of universities, colleges and divisions of vocational and technical education in the United States and Canada to provide for excellence in instructional materials.

Direction is given by a representative from each of the states, provinces and territories. AAVIM also works closely with teacher organizations, government agencies and industry.

INTRODUCTION

Some teachers may be disappointed to learn that there are no teaching tricks that can suddenly make a reluctant learner leap to the head of the class. There are no magic formulas by which you can free a troubled student's mind. No one has devised some secret skills for teaching the handicapped.

Surprisingly enough, you really don't need them. After all, the best teaching you can give to exceptional students is, basically, just good teaching. As a well-trained vocational teacher you probably have most of the teaching techniques you need in order to help exceptional students to learn. Now you must be able to put them all together, using the full range of techniques in your teaching repertory and performing them in the very best way you know how.

There are some additional abilities you need in order to apply those teaching techniques in the most effective way possible for the particular students you have in your class. You must be able to (1) analyze the teaching situation and the needs of your students, (2) select the most appropriate technique for the situation, (3) perhaps modify or adapt the technique to make it most suitable for what you are trying to do, and finally, (4) perform the technique according to your personal teaching style.

This module is concerned with a group of vocational teaching techniques that are known to be especially useful for teaching exceptional students. You will be reminded what the techniques are and will be shown why each of them is important for this group of students. Through recommendations and examples, you will learn how to use these techniques in helping exceptional students to learn and develop. You will not be supplied with information on how to plan and perform the teaching techniques. It is assumed that, through your previous training and experience, you will by now have achieved at least a minimal level of proficiency in these skills. Of course, you may wish to refresh your knowledge and improve your performance by reviewing and practicing them.

As you increase your effectiveness in instructing exceptional students, your other students will also benefit from your greater versatility and from your improved and expanded proficiency. This module, however, has a somewhat narrower aim. It is specifically designed to help you achieve competence and confidence in applying teaching techniques, perhaps in special ways, to the instruction of exceptional students.

ABOUT THIS MODULE

Objectives

Terminal Objective: In an actual teaching situation, use instructional techniques to meet the needs of exceptional students. Your performance will be assessed by your resource person, using the Teacher Performance Assessment Form, pp. 38–40 (*Learning Experience III*).

Enabling Objectives:

1. After completing the required reading, critique the performance of a vocational teacher in a given case study in applying the basic principles governing the provision of instruction to students with exceptional needs (*Learning Experience I*).
2. After completing the required reading, identify the instructional techniques and activities appropriate for the exceptional needs of students described in given case situations (*Learning Experience II*).

Prerequisites

The modules in Category L are not designed for the prospective teacher with no prior training and/or experience. They assume that you have achieved a minimal level of skill in the core teacher competencies of instructional planning, execution, and evaluation. They then build on or expand that skill level, specifically in terms of serving students with special/exceptional needs.

In addition, to complete this module, you should have defined or redefined your educational philosophy to include your responsibility for serving students with exceptional needs; and you should have competence in identifying and diagnosing the needs of these students. If you do not already meet these requirements, meet with your resource person to determine what method you will use to do so. One option is to complete the information and practice activities in the following modules:

- *Prepare Yourself to Serve Exceptional Students,* Module L-1
- *Identify and Diagnose Exceptional Students,* Module L-2

Resources

A list of the outside resources that supplement those contained within the module follows. Check with your resource person (1) to determine the availability and the location of these resources, (2) to locate additional references in your occupational specialty, and (3) to get assistance in setting up activities with peers or observations of skilled teachers, if necessary. Your resource person may also be contacted if you have any difficulty with directions or in assessing your progress at any time.

Learning Experience I

No outside resources

Learning Experience II

Optional

A local community and/or school that you can use to identify the range and types of specialists and special services typically available to students with various exceptional needs.

A local community in which you can locate appropriate job sites that students could visit, to use as a basis in developing a job-site resource package.

Supplementary references on how to develop students' creativity and ability to think divergently, by such authors as Sidney J. Parnes, Carl R. Rogers, E. Paul Torrance, and Frank E. Williams.

A special education, remedial, or accelerated class that you can visit and observe to identify additional techniques you could use.

Learning Experience III

Required

An actual teaching situation in which you can use instructional techniques to meet the needs of exceptional students.

A resource person to assess your competency in using instructional techniques to meet the needs of exceptional students.

Terminology

Special/Exceptional Needs: Referred to in the modules simply as exceptional needs, this term refers to those needs that may prevent a student from succeeding in regular vocational education classes without special consideration and help. The following types of students are included in our definition of students with exceptional needs:

- Persons enrolled in programs nontraditional for their sex (e.g., the male in home economics)
- Adults requiring retraining (e.g., displaced homemakers, technologically displaced)
- Persons with limited English proficiency
- Members of racial/ethnic minority groups
- Urban/rural economically disadvantaged
- Gifted and talented
- Mentally retarded
- Sensory - physically impaired

General Information

For information about the general organization of each performance-based teacher education (PBTE) module, general procedures for its use, and terminology that is common to all the modules, see About Using the National Center's PBTE Modules on the inside back cover. For more in-depth information on how to use the modules in teacher/trainer education programs, you may wish to refer to three related documents:

The *Student Guide to Using Performance-Based Teacher Education Materials* is designed to help orient preservice and inservice teachers and occupational trainers to PBTE in general and to the PBTE materials.

The *Resource Person Guide to Using Performance-Based Teacher Education Materials* can help prospective resource persons to guide and assist preservice and inservice teachers and occupational trainers in the development of professional teaching competencies through use of the PBTE modules. It also includes lists of all of the module competencies, as well as a listing of the supplementary resources and the addresses where they can be obtained.

The *Guide to the Implementation of Performance-Based Teacher Education* is designed to help those who will administer the PBTE program. It contains answers to implementation questions, possible solutions to problems, and alternative courses of actions.

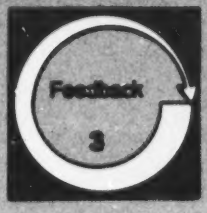
Learning Experience I

OVERVIEW

After completing the required reading, critique the performance of a vocational teacher in a given case study in applying the basic principles governing the provision of instruction to students with exceptional needs.

You will be reading the information sheet, Basic Principles in Instructing Exceptional Students, pp. 8–14.

You will be reading the Case Study, p. 15, and critiquing the performance of the teacher described.



You will be evaluating your competency in critiquing the teacher's performance in applying the basic principles governing the provision of instruction to students with exceptional needs by comparing your completed critique with the Model Critique, pp. 17–18.

Activity 1

For information on how the basic principles of good instruction apply to the teaching of students with exceptional needs, read the following information sheet.

BASIC PRINCIPLES IN INSTRUCTING EXCEPTIONAL STUDENTS

Vocational teachers who have exceptional students in their classes will need to take unusual care in delivering instruction to them. The techniques of instruction will have to be selected thoughtfully and applied with precision in order to (1) increase learning and (2) foster the kind of personal growth and development that are so much needed by exceptional students.

These instructional techniques are not necessarily uniquely designed for use with exceptional students, however. They are basically the same techniques that any **good** teacher uses. Good teaching promotes learning, whether the students who receive it are "average," healthy, and well cared for, or are students who carry with them a whole variety of exceptional needs.

The instructional techniques that you, as a vocational teacher, will be using with exceptional students do not have to be learned separately, over and above those you normally apply to your subject matter and your other students. Rather you will need to modify and adapt the way in which you go about teaching, seeking the best methods by which to reach the individuals in your classes. Much of the selection and application process is a matter of common sense, personal sensitivity, and good judgment.

In this module, you will be reminded about a number of teaching techniques with which you are probably familiar. Your attention will be drawn to the importance of the techniques to exceptional students. And you will be given some examples of how the teaching techniques might be used in teaching certain exceptional students.

There is some hazard in this. You may mistakenly infer that there is some sort of prescribed method that should be used with each group of special students—for slower learners you use this set of techniques; for physically handicapped students, that set. Such is not at all the intent of the module. It is true that in writing about exceptional students it may be convenient to deal with categories or groups. But as a teacher you must deal with individuals—each a unique and worthy person, each needing your special skill and help.

Identifying students, as, for example, having physical handicaps is useful in determining **some** exceptional needs that they **might** have. However, you are cautioned not to label your exceptional students as being only "economically disadvantaged" or "physically handicapped" or "nontraditional." Such labeling can do a great disservice to students by placing them exclusively in a group with whom they share just one characteristic. Concentrate instead on the uniqueness of individuals and attempt to work with them, using thoroughly learned techniques to solve the particular problems they pose.

There are some **basic principles** of instruction that apply equally well to most of the exceptional students you are likely to meet in your classes, as well as to the so-called "average" students. In addition, among the various broad categories of special techniques available, **individualizing instruction** holds great potential for dealing with the unique needs of your students. Finally, the principle of **reinforcement** of learning can be effectively applied to a wide range of instructional situations and student characteristics. Each of these three broad topics will be dealt with here, with some recommendations for particular techniques and their application.

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Teaming

It is important to remember that, in planning and delivering instruction for exceptional students, you are not alone. There are probably others in your school who have special skills, upon whom you can call.

If you are teaching students with limited English proficiency, for example, you can work with a language instructor to devise instruction sheets and audiovisual materials in the student's native language. A paraprofessional may be able to come to your laboratory sessions to work individually with a student who requires much direction and repetition. Other instructors, school counselors, aides and paraprofessionals, volunteers from the community, itinerant teachers, and interpreters may be available to contribute their expertise to your instructional problem.

Sometimes you may wish to work with one of these individuals on one particular problem. If you are working with several exceptional students, it may be good to use a team approach. That is, one or more others can share responsibility with you in delivering the instruction best suited to your students' needs.

You as the teacher will benefit from the pooling of effort and resources,which should result in increased student learning. This is important to exceptional students; involvement of a variety of persons, as well as the various approaches they can bring, can more readily provide the attention, direction, and personal concern they need.[1]

Variety

The advantages of variety also extend to the instructional techniques that you individually incorporate in your teaching of exceptional students. it is easy to become limited to using a few techniques you know you can use well and feel comfortable in using. However, to meet the learning styles of your exceptional students, you should expand your repertory.

For the slower learner, you might prepare a hands-on experience with clearly defined steps. For the more capable learner, you might simply serve as a resource person while the student devises and completes his/her own project on, for instance, an original design. You might give an oral examination to a student with limited English proficiency and use an advanced retraining student to assess the performance of a beginner.

The wider the variety of teaching techniques you have available to you, the more likely you are to be able to match your instruction to the specific needs of your students. Variety also will help students who have short interest and attention spans to maintain interest in the subject.

Pacing

In a way, pace is another form of variety in instruction. Pace is the rate or speed of instruction. It may refer to the rate at which you deliver a single lesson or to the rapidity with which one unit of instruction or one activity follows another. In either case, the good teacher is able to control the pace at which instructional events take place in the classroom or laboratory and to prevent them from moving in a helter-skelter fashion.

In presenting a demonstration, for instance, you might slow the procedure, frequently pausing to provide time for the student with limited English proficiency to formulate a question. In group activities, the closing of one activity and the beginning of another should permit all students to complete the first set of tasks before being given new ones.

The proper pace may well vary even for one student. For example, a wheelchair-bound student might be given extra time to complete a physically demanding task that involves considerable move-

1. To gain skill in identifying the many types of individuals available to assist you, you may wish to refer to Module L-3, *Plan Instruction for Exceptional Students*.

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ment around the shop. That same student might be held to a fast pace in doing a writing assignment.

Exceptional students, in general, should be individually paced in their learning to maintain their progress and interest, yet avoid the frustrations and failure that undue pressure may cause.

Orientation

Early in the program, you will undoubtedly be orienting your whole class to (1) your particular classroom and laboratory, (2) the procedures you will be using, and (3) the instructional expectations you have for your students. The exceptional students in your class will be participating in this orientation. But if a general orientation is inadequate for them, they may require some additional attention.

For example, physically handicapped students may need additional orientation on how they are to operate certain machines, where controls are located, or where they are to be seated during lectures and demonstrations. In such programs as cosmetology, food services, and health occupations, some students may need to be oriented to the instructor's expectations about their personal hygiene and grooming.

In planning an orientation, it is important that the characteristics of each exceptional student be considered and that nothing be taken for granted. The orientation should be designed to get each student off to a successful and safe start.

As a part of orientation, you will probably discuss the program or course objectives with your students. Those objectives may have been modified somewhat to meet the needs of exceptional students. Each exceptional student should understand the nature of those differences as they apply to him/her. If there are some general objectives that certain students will not be expected to meet for any reason, they should know that. If, because a student has different occupational goals, there are additional objectives to be met, that should be made clear from the start.

Not only should the objectives be clear to the students involved, but those students should be in agreement with them so they do not perceive them as condescending, patronizing, or inappropriate. Only when students understand the program goals and objectives—and see them as relevant and attainable—will they be able to give them their best effort.

Consistency and Fairness

Related to the need for adequate orientation is the general principle that all students should be treated consistently and fairly. It is possible, unintentionally, to treat the exceptional student unfairly in two diametrically opposite ways: (1) by placing unreasonable demands on a student who is incapable of meeting those demands or (2) by making such great concessions that the student feels set apart from the peer group and patronized by the teacher. Either of these unfair treatments may be committed with the best intentions—prompted by anxiety for the student and ignorance of the student's actual needs. But the effect is destructive nonetheless.

In order to ensure consistency and fairness to all students (including those considered to be "average"), routine shop tasks should be rotated so that everyone takes a turn at each one. Similarly, leadership roles or other responsibilities should be assigned so that all students have equal opportunity to experience these roles.

In secondary schools, the same level of behavior should be expected of exceptional students as of others, and disciplinary measures should be applied in an even-handed way. Similarly, a student with prior skill in an area (through previous employment or training) should be required to follow the same safety procedures as the rest of the class, regardless of the expertise he/she supposedly has. Good safety procedures are good safety procedures—for everyone.

It is also a matter of fairness to ensure that all students are continually involved in relevant and valuable learning activities. Time-on-task (the amount of time a student spends on a learning task) has been shown to be an important factor in the rate of student learning. Many exceptional students can profit

greatly by increasing the time they are actually in contact with and paying attention to the learning situation. This means that keeping students "involved" by using time-filling activities or busy work is not acceptable. You must design tasks related to the objectives to be achieved and then work constantly and consistently with the students to keep them on task.

Integration

One of your objectives in dealing with students who have exceptional needs should be to instill in them pride in their work, in themselves, and in the classroom group to which they belong. This feeling of self-worth is most crucial to the development of those who have been constantly set apart and who have so often tasted failure. You will need to make the handicapped, the disadvantaged—any students who are "different"—know that they are integral members of your class.

One way to do this is to facilitate interaction among your students through large-group and small-group discussion. It is important to provide an opportunity—even for the student who has difficulty in communicating—to contribute something to the process. The artistic handicapped student could be assigned to do a bulletin board. Slower learners can be assigned regular tasks—such as passing out supplies—that give them responsibility and a sense of pride in being a part of the group.

Remember, however, the principle of fairness. Certainly, it is true that you should assign tasks to students that they are capable of performing successfully. However, you need to be careful not to relegate all the boring, menial tasks to the mentally retarded student, while the other students are assigned more interesting things.

In addition, some exceptional students (e.g., those in programs nontraditional for their sex, the mentally retarded, the handicapped, and those with limited English proficiency) may need to be actively encouraged to take a role of equality in their group. The vocational student organization is an excellent vehicle for accomplishing this. Through your leadership, exceptional students may become fully involved in vocational student organization activities and eventually take some positions of responsibility.

Simply requiring or encouraging membership in the organization is not enough, however. You must work to ensure that the students have remedial help (e.g., extra sessions on parliamentary procedure) if they need it to participate fully. You should also work with the organization to ensure that its activities are designed to provide opportunities for all students to be actively involved. Activities should draw on and develop each student's talents and strengths.[2]

2. To gain skill in integrating exceptional students into the regular classroom, you may wish to refer to Module L-6, *Promote Peer Acceptance of Exceptional Students*.

Individualization

The principles of individualizing instruction should be well known to you through your previous study of teaching and perhaps through your own experience. Individualization involves setting objectives and providing learning experiences to achieve those objectives according to the needs, interests, and abilities of the student. Individualization has, of course, been accepted in education as a valuable instructional approach and is widely practiced in vocational education programs. It must be given an even more thorough application in working with exceptional students.

Do not confuse individualized instruction with having each student doing something completely different. Individualization does mean meeting individual needs. But these needs can be met, generally, through **a mix** of large-group, small-group, and individual activities. Students share needs. For the most part, individualizing instruction for exceptional students is simply a matter of using the usual methods and materials in a more organized and thorough fashion.

To begin with, your total program should be based on an analysis of the tasks or competencies required in the occupation. Because of this, your exceptional students can be accommodated in the program with a minimum of disruption or restructuring. The program competencies, for one thing, can be reviewed in the light of the students' capabilities and occupational goals. They can then be readily selected and sequenced to suit those unique capabilities and goals—keeping in mind occupational requirements, of course.

The use of **multimedia learning packages** is now becoming widespread and is a boon to the teacher who is trying to provide individualized instruction. Well-designed learning packages (e.g., learning activity packages, modules, or learning guides) can be used by students with various needs.

Hearing-impaired students, for example, can use print materials and other visuals to achieve competence in the designated skill. Visually impaired students and those with reading deficiencies can profit from the audio versions of the information sheets. Slower and more capable learners can individually proceed at their own best rate to achieve success.

You may wish to supplement the packages to provide the range of learning activities required, but this is a relatively easy matter once the basic package is developed.

Another form of individualized instruction—**computer-assisted instruction (CAI)**—is available in some schools and should be used wherever possible. CAI has been proven effective where thoroughly prepared and tested programs have been developed. Long associated with high-level learning in the technological fields, programs are now available for various basic skills and beginning learners. Of course, time of learning is not a factor in CAI, but success is. Working with a computer terminal can be enormously fascinating to certain types of students, holding their attention and keeping them on task as almost nothing else can.

Even without computer-assisted instruction or well-developed learning packages, however, you can do much to individualize instruction through **simple common-sense strategies**. Students with limited English proficiency can be given assignments that help them not only to achieve the occupational skill but also to learn new vocabulary words. Students with different racial/ethnic backgrounds can go on personal field trips or visits designed to help them understand the conditions of the work place and expectations of American employers.

On a day-to-day level, you can schedule some time, even though brief, to **observe and confer** with each student during every laboratory period. As you recognize impediments to learning, you can repeat a short demonstration for a student, solve a problem about an inaccessible machine control, or create a different project activity to help the student master a new skill. These kinds of quick and discrete teaching events can clear the path for learning and help exceptional students avoid the sense of crushing frustration and failure caused by problems they have no way of solving themselves.

You should not forget the possibility of having **students help other students** as a way to increase individualization. Experienced and mature individuals can work with beginners, either in a structured "buddy system" or in informal situations that you set up to meet a need. An Anglo student who speaks Spanish, for example, can be paired with a newly arrived Spanish-speaking student, to the benefit of both. A sensory impaired student can use the eyes or ears of a fellow student to get around in the lab or read the assignments.

For accelerated students in particular, the use of **case studies** can be a strategy for individualization. The case studies may be hypothetical ones that you develop, or they may be based on students' experiences on the job. Probably the greatest benefit of case studies is that they are a form of simulation and can be used to give students an opportunity to work on their own to solve real-world problems in a creative way.

Reinforcement

Every time you give a word of praise to a student who has done a good job, award a high rating for a project, nod approvingly as a student answers a question correctly, or display a sample of a student's work, you are providing positive reinforcement of learning. The basic principles of reinforcement are now a standard feature of learning theory and are commonly used by good teachers.

Briefly, positive reinforcement means providing some form of reward when desired behavior is demonstrated, on the principle that such behavior will then be repeated. Rewards can take the form of approval, praise, privileges, or tangible gifts—whatever the **student** perceives as valuable and desirable.

It is widely recognized that students who, for whatever reason, have difficulty in succeeding respond more positively to reinforcement than high achievers and more successful learners. Thus, as a vocational teacher with exceptional students—whose exceptionalities hinder their ability to succeed—you should certainly make generous use of positive reinforcement. Too often exceptional students have had few successes and have received infrequent positive reinforcement for what they have done.

All the means of positive reinforcement you regularly use in your teaching can be applied in teaching exceptional students. Some additions and changes in strategy may also be helpful.

For example, some exceptional students may need to be helped to accept **delayed gratification**—rewards that come after a period of time or after the completion of a long-term, complex task. This can be accomplished by giving reinforcement frequently at first, then gradually lengthening the time between reinforcements. Early on, you can provide immediate and frequent success experiences. As time goes on, you can increase the difficulty of and time allowed for the task so that success takes place at wider intervals.

In addition, **constructive criticism**, when it is needed, should not be withheld from the exceptional student. However, it should always be given in a positive manner. It is essential that the student understand that it is the action or product that is being criticized, not his/her value or worth as an individual.

In this regard, students must learn from you that some failure and some criticism are a normal and expected part of life. Failures will occur when they are on the job, and employers and supervisors will criticize their work.

Thus, your own vocational program should help students achieve a healthy level of acceptance of temporary "failures" and criticism. You can increase your expectations gradually until a job-entry level of skill is achieved, providing regular feedback (a form of reinforcement) to students as they proceed. In this way, you can provide the supportive, accepting environment required to promote learning. At the same time, you will be developing students' feelings of self-worth and easing their transition into the real world.

The use of **feedback** deserves a further reminder. Some of your students, for example, may come from backgrounds that have provided few guides for growth and positive development. They will need constant feedback from you so they can learn what is acceptable and what is not acceptable. Some students with obvious, severe physical impairments may have been protected from the realities of life to such an extent that they have no accurate measure for knowing how well they are doing. You will need to correct and constructively criticize the work of the student on crutches just as you would others, even though providing this kind of equitable and real feedback may be painful to you at first.

Much can be done to provide positive reinforcement through the atmosphere you create in your vocational classroom and laboratory.[3] Over a period of time, you can foster a **nonthreatening learning environment**—one that is relaxed rather than tense, where feelings can be expressed, where good ideas are accepted, where all students are treated with dignity, and where students can request special help without reluctance or embarrassment.

3. To gain skill in creating an appropriate classroom environment, you may wish to refer to Module L-5, *Modify the Learning Environment for Exceptional Students.*

You yourself are the most critical factor in this situation, for you are the role model your students will tend to follow. If you treat a student with a severe disfigurement fairly and without discomfort or unease, your other students are more likely to do the same. If you accept the lone male student in a nursing class matter-of-factly, the possible tensions will be greatly reduced. If you encourage a nontraditional student to participate in leadership activities in your vocational student organization, acceptance by the group will be speeded.

There are other ways in which **role models** can be used to reinforce student learning. For example, a guest speaker who is black, and who has "made it" in your occupational area, can serve as a powerful role model and, therefore, reinforcement for an insecure black student.

Successful handicapped workers can be used as resource persons as you work to modify your shop for handicapped students. At the same time, they can provide reinforcement for those students. Outside experts, in general, can aid students in gaining a realistic view of the world of work and help them come to terms with their own potential and limitations.

It may not even be necessary to go outside your own program to find such persons. An experienced worker back for retraining can be encouraged to share with peers instruction-related information and skills acquired through previous employment. An ex-offender preparing for a new occupation may be able to help other students through the insights he/she has gained.

Finally, you can reinforce learning by creating a **positive environment**—one in which students can grow personally. Slower learners can experience (perhaps for the first time) continued positive achievement and closure on a task. You can structure the work of the economically disadvantaged student so he/she can produce a valuable product or a useful service. Displaced homemakers in your program can, through success and reward, develop a pride of ownership—in their work and in themselves—that they have seldom had before.

Read the following case study describing how Marjorie Schwartz, a vocational teacher, applied the principles governing the provision of instruction to students with exceptional needs. As you read, try to determine what Ms. Schwartz is doing right, what she is doing wrong, and what she should have done instead. Then **prepare a written critique** of Ms. Schwartz's performance in applying these principles.

CASE STUDY

Marjorie Schwartz was very anxious about how she could possibly meet all the various needs of the students in her vocational class. One student, Paul, had been employed in a related area and did not, therefore, need some of the training she usually provided. Another student, Angelo, who was from an economically disadvantaged family, seemed to fail no matter what Ms. Schwartz tried. As soon as he failed, he lost interest. Two mentally retarded students, Anne and Earl, has been mainstreamed into her class. They were achieving slowly but taking up huge amounts of her time in the process. The rest of the students in the class fell somewhere in the so-called "average" range of needs and abilities.

Since funds were limited, Ms. Schwartz knew that she had none of the devices—computer-assisted instruction, learning packages, etc.—that would have allowed her to individualize instruction. So she planned instead to do the following. She would teach her classes according to her usual plans, which would work for the majority of the class. Then, she would use a buddy system, pairing both Anne and Earl with Paul to do any lab work. That way, Paul could provide the extra help needed, and at the same time, he would be productively involved until such time as she began to cover material that was new to him.

She put this plan into motion, and things seemed to be going well. She sensed some frustration on Paul's part, but he was effective in working with Anne and Earl. He not only provided instruction but even made sure they cleaned up the lab area for the three of them at the end of each class. Paul was sometimes late to class, it's true. But Ms. Schwartz decided not to make an issue of it since he didn't need the material he was missing and was, after all, doing her a favor.

One day as she was monitoring work in the laboratory, Ms. Schwartz noticed that Anne and Earl weren't keeping up at all, despite Paul's efforts, and that Angelo had ruined his assigned materials and, thus, was sitting idle and daydreaming. Frustrated, she had the students finish up and then reassembled the students into a large group. She explained, once again, the objectives of the assignment, what exactly they were supposed to do, why it was important, and how crucial it was for everyone to keep up.

She didn't want to discourage Anne and Earl, so she mentioned that she was very pleased with their perseverance. She said that she knew it wasn't easy for them and she appreciated their willingness to keep trying.

Then, looking at Angelo, she said that materials were limited and expensive—that students who didn't care enough not to waste materials, who weren't even interested, might do well to reconsider either their attitudes or their program choice. Finally, she publicly thanked Paul for all his efforts in helping Anne and Earl.

She dismissed class, noting that she had great hopes for their work tomorrow. Paul left class first, alone as usual. Then the rest of the students left, with Anne and Earl looking a little discouraged and Angelo looking nonchalant and unimpressed as always. Ms. Schwartz was very frustrated. What, she wondered, am I going to do?

NOTES

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Compare your written critique of the teacher's performance with the model critique given below. Your response need not exactly duplicate the model response; however, you should have covered the same **major** points.

MODEL CRITIQUE

Poor Ms. Schwartz. Her lack is not that of funds, but of an awareness of how much individualization can be accomplished without sophisticated resources, using only good instructional techniques and common sense.

She did try to individualize a little with what she had by giving Paul an important task (teaching) to do and by providing Anne and Earl with the extra personal attention they needed. However, neither of these solutions is entirely satisfactory.

Her assignment for Paul violates both the principle of fairness and that of providing all students with relevant learning activities. Some use of students as tutors is both justifiable and beneficial in that their own skills are strengthened in the process. However, using Paul exclusively as a tutor fails to provide him with the instruction—at his level—that he needs. He should be spending the **majority** of class time working on specially designed activities related to his occupational objectives.

It is also unfair to both Paul and the other students that Ms. Schwartz is not requiring him to abide by the same classroom rules as the others. Paul is allowed to wander into class late, and he makes sure Anne and Earl clean up their lab area—a responsibility he doesn't share. It is no wonder that Paul leaves class "alone as usual." She has set him apart from the class as "special." His advanced skills isolated him some; she has isolated him further. By involving him in classroom activities, requiring him to follow the same rules as everyone else, and sharing the tutoring function among all capable students, Ms. Schwartz would create a fairer classroom environment.

Another error is in her insistence that all students "keep up"—in other words, progress at the same rate. Anne and Earl, and perhaps Angelo, need more time. Paul needs less time, at least initially, and perhaps different tasks. The rest of the students in the so-called "average" range also will need varying amounts of time to succeed. Even without computers and learning packages, it is possible to vary the time allowed, using simple teacher-made materials, such as information and operation sheets, to guide student progress.

And poor Angelo. He is definitely a lost soul in this class. Clearly, his life experiences have not dealt him many success experiences. Consequently, when things go wrong, he tunes out. He cannot sustain his efforts with only failure as a "reward." Angelo needs a great deal of positive reinforcement to divert him from this pattern of failure and resignation, which he covers with an "I-don't-care" attitude.

While Ms. Schwartz sees Anne's and Earl's need for extra help and success experiences, she hasn't gotten past Angelo's attitude to see that he, too needs these things. Perhaps pairing him with another student would help. Even better, instead of "monitoring" the lab work, she could make an effort to spend small amounts of time working directly with Angelo. In this way, she could make sure that he starts off, and continues, on the right foot, and she could supply the encouragement and reinforcement he so badly needs.

Related to this is Ms. Schwartz's use of reinforcement. Providing reinforcement does not mean singling out individuals in a large-group setting, which has the potential for embarrassing students. Nor does it mean saying, in effect, "you are different and slow and I don't expect much of you, but I appreciate your trying" as she did to Anne and Earl. Reinforcement works best when provided at the time it's deserved and on an individual basis.

Her concern that students be adequately oriented to such things as the course objectives is correct. However, in this case the problem was caused not by a lack of orientation but by a lack of appropriate individualization to allow for different skill levels and learning speeds.

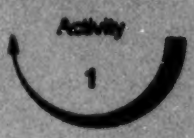
All is not lost, however. Ms. Schwartz obviously wants to do well and to help her students succeed. By using the principles of good teaching, some common sense, and a little creativity, she can probably do just that.

Level of Performance: Your written critique of the teacher's performance should have covered the same **major** points as the model critique. If you missed some points or have questions about any additional points you made, review the material in the information sheet, Basic Principles in Instructing Exceptional Students, pp. 8–14, or check with your resource person if necessary.

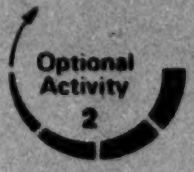
Learning Experience II

OVERVIEW

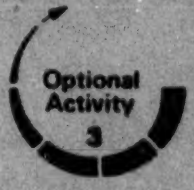
After completing the required reading, identify the instructional techniques and activities appropriate for the exceptional needs of students described in given case situations.



You will be reading the information sheet, Remediation, Accommodation, and Acceleration, pp. 21–29.

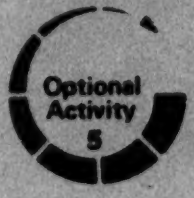


You may wish to increase your awareness of the specialists and special services available to students by compiling a list of the remedial specialists and accelerated programs available locally.



You may wish to compile a resource packet of materials related to prospective job sites that students could visit.

You may wish to read one or more supplementary references on developing students' creativity and ability to think divergently.



You may wish to arrange through your resource person to observe the techniques used in a special education, remedial, or accelerated class to determine their applicability to your classes.

You will be reading the Case Situations, pp. 31–34, which describe the exceptional needs of some individual students, and identifying appropriate techniques and activities to meet each need.

You will be evaluating your competency in identifying the instructional techniques and activities appropriate for students' exceptional needs by comparing your answers with the Model Responses, pp. 35–36.

Activity 1

The types of specialized instruction you will need to provide in order to meet the needs of your exceptional students can be clustered into three areas: remediation, accommodation, and acceleration. For information on the techniques that can be used in each of these three areas, read the following information sheet.

REMEDIATION, ACCOMMODATION, AND ACCELERATION

Students who have specific learning difficulties may require either of two kinds of special instruction. They may need **remediation**, in which clearly defined deficiencies are attacked and corrected. Or they may require **accommodation**, in which you as the teacher change, modify, or adapt instructional strategies and techniques to best meet their existing abilities.

For some of your students, who may be especially fast learners or who have a wealth of life experience on which to draw, you will need to use techniques designed to **accelerate** progress, allowing the students to move ahead at a more rapid pace. The remainder of this information sheet explains these three special approaches to instruction.

Remediation Techniques

Remediation techniques are those that are designed to correct a rectifiable learning deficiency. For example, a student, new to the United States from the West Indies, may have difficulty with skills that use the U.S. measurement system rather than the metric. That student can undoubtedly succeed in the skills to be covered in your class—if he or she has some extra help.

Such help can be provided by extra one-to-one help in class from you or a peer. Or it can be furnished through the use of supplementary texts, audiovisuals, games, and so on. It can be supplied through specially designed outside assignments. Or it can be offered through special remedial classes or tutoring.

Generally, providing or arranging for the necessary remediation is a simple task and well worth the effort if it succeeds in preparing students to participate fully and productively in the class.

In-class Remediation

Your in-class remedial resources are plentiful so long as you do not limit your thinking to what you alone can do. Consider the following students and the remedial help they need:

- Students whose math skills aren't quite up to par (e.g., perhaps a mentally retarded student or a displaced homemaker, away from formal education for 20 years, whose skills are rusty)
- Students who are unfamiliar with U.S. measurements (e.g., the student from the West Indies)
- Students whose backgrounds did not expose them to tools and equipment usually considered common knowledge (e.g., an auto mechanics student who has never had a car to tinker with because his/her family used public transportation rather than cars)
- Students whose parents didn't work (because of a disability or lack of education or for whatever reason) and who have no realistic frame of reference regarding the world of work
- Students who can read, but only slowly (e.g., a student for whom English is a second language, a mentally retarded student, or an economically disadvantaged student in whose home books and reading were nonexistent)
- Students who understand English only if it is spoken slowly (e.g., a student for whom English is a second language)

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These and other related problems can be treated in a variety of ways within the classroom. At times when students are working on a small-group or individual basis (in the laboratory or in a competency-based program, for example), you have the opportunity to **spend small amounts of time with individual students**, addressing problem areas requiring remediation. This doesn't require you to do anything you're not already doing as a good teacher. You're just **focusing** your attention—during your one-to-one or small-group contacts with students—on these specific problems.

For example, the home economics teacher would normally circulate throughout the food lab while students, working alone or in teams, perform a lab assignment, such as preparing an asparagus quiche. The teacher monitors the work, assesses progress, makes suggestions, and provides help as needed. If the student who was unfamiliar with U.S. measurements were in this lab, the teacher could use this time to provide a little remediation on measurements, at a time when it is especially relevant. If the student who understands English only when it is spoken slowly were in this lab, the teacher could use this time to ensure that the student had, in fact, understood the pre-lab lesson and instructions.

Or, consider those times when students are doing reading assignments in class. This is a perfect time for the teacher to work individually with the student who reads slowly, to give him/her a little remedial reading help.[4]

A student's **peers** can also provide some of the needed remediation. That student in the home economics lab, for example, could be teamed with one or more students who are competent in measurement. Remember, though, the act of "teaming" does not automatically result in the provision of remedial help. Anytime you wish to have students instruct other students, you need to prepare them for this task. The student-instructors need to understand their role and the assistance needed. The student requiring remediation needs to understand how that remediation will be provided and what is expected of him/her in the process.

Use of peers or other tutors (e.g., paraprofessionals, aides, volunteers) is not limited to the laboratory. Anytime students are working individually or in small groups, teaming or tutoring can occur. Anytime one student achieves an objective and masters a skill more quickly than other class members, that student could be asked to help another student requiring remediation. If not overused, this is of help to both students since the student-instructor reinforces his/her own skill in the process of helping another.

One-to-one remediation is not always available or of enough help, however. Neither is it always the most efficient technique. Some students need more help than can be provided in class on a one-to-one basis. Other students can most easily and quickly get the help they need by working on their own.

To help these students, **instructional materials** are needed. You need to make available to students a variety of materials (e.g., texts, workbooks, programmed materials, worksheets, instructional games, 8-mm film loops, videotapes, slide/tapes, and other materials) that students can use, on their own, to get the extra help they need. These can be commercially prepared or teacher-made materials.

4. To gain skill in providing students with remedial reading skills, you may wish to refer to Module M-1, *Assist Students in Achieving Basic Reading Skills*; and M-2, *Assist Students in Developing Technical Reading Skills*.

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A student needing remedial help in math, for example, can be given teacher-made worksheets specifically designed to provide instruction and practice in his/her problem areas. Students needing simple materials, with high-motivation characteristics, can be given instructional games (e.g., a crossword puzzle related to tool identification, a word game to strengthen occupational vocabulary) with which to work.

Bear in mind that remediation need not be lengthy. The student who isn't familiar with the "common knowledge" tools and equipment of the occupation may need only to see a film loop covering that topic or to have a handout showing those items and their names. By spending a little time with the film loop or the handout, this student may be ready to go.

Students' knowledge and skill levels may not be the only things requiring remediation in class. The exceptional needs of some students cause them to develop behavioral problems, which can interfere with their ability to learn and disrupt the class. Handicapped students who have been overly pampered, emotionally immature mentally retarded students, or street-wise economically disadvantaged students can all, sometimes, present behavior problems. These problems must be solved, both for the class to function smoothly and for the student to function on the job later.

Severe problems, of course, will need to be handled outside the class, perhaps by trained specialists. For many problems, however, your use of **behavior contracting** can be very effective. This simply means that you explain to the student why the behavior is unacceptable and then work with him/her to develop a contract specifying how that behavior is to change. The student then signs the contract, agreeing to its terms. This places the responsibility for change where it belongs—on the student.

Change is much more likely to occur when it is self-imposed than when it is imposed from outside. The motivation to change is enhanced because the teacher is not saying in front of everyone, "John, please stop talking out." Instead, the teacher is saying, in effect, "John, I trust you to be responsible—to change your own behavior." Additional motivation can be provided, if necessary, by specifying a reward the student can earn by fulfilling the contract.

Outside Assignments

Assignments to be completed outside the classroom/laboratory can be specially designed to provide the necessary remedial help. Of course, the **print materials** (e.g., handouts, worksheets, texts) mentioned in the previous sections can be used as outside assignments. In addition, however, outside projects can be devised—perhaps as part of vocational student organization activities—in order to provide needed remediation.

One example of such an assignment would be a **community involvement project** requiring students to repeatedly apply the skills in which they need remediation. The student needing remedial help in English, for example, could participate in a project that requires him/her to speak the language. Perhaps volunteer work, such as visiting the elderly or the hospitalized, would provide the needed practice. Or tutoring youngsters in, for example, math might be another example.

Similarly, the student who is just encountering carpentry tools and equipment for the first time could reinforce his/her new skill in using those simple tools by building a sandbox for the neighborhood park.

For the students who have no realistic frame of reference concerning the world of work, a different type of outside assignment is needed. These students need opportunities to **visit job sites** or encouragement to arrange for and make such visits on their own.

In order to ensure that such visits are productive, you need to follow the principles guiding the direction of any field trip. The job-site personnel need to have a clear understanding of the purpose of the visit. They need to plan specific activities to meet that purpose (e.g., conducting a guided tour or assigning the student to a specific employee). The student, too, needs to have a clear idea of the purpose of the visit and what he or she needs to do to prepare for it (e.g., prepare a list of questions to be answered).

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Incidentally, the benefits of such visits can be brought back into the classroom and shared very easily. Students can be asked to prepare a report of each visit made. (You might want to specify a particular report format.) Then, if many students need remediation in this area—exposure to the world of work—students could present these reports orally. These reports can also be placed in a file, which present and future students can use to gain an understanding of what it's really like on the job.

Special Remedial Classes or Tutoring

One of the special remedial techniques available to you—in varying degrees, depending on your situation—is the use of other **specialists**. These are people who are specially trained to provide regular, intensive remedial instruction for specific problems.

Your secondary or postsecondary school may have remedial reading instructors, English-as-a-Second-Language (ESL) teachers, a corps of paid or volunteer tutors for specific skills such as math, and so on. These specialists may also be available within the community.

In making use of remedial services, your role is to do the following:

- Determine exactly what remedial instruction services are available within the school and community. (Your school should maintain a list of such services, perhaps in the guidance office.)
- Know the prescribed procedures for referring students to these services.
- Alert students to the wealth of services available to them.
- Refer students for this sort of intensive remediation when needed, or encourage them to refer themselves.

Accommodation Techniques

Accommodation techniques are those that are designed to help you tailor your instruction each day to the wide variety of exceptional needs you must **continue** to meet. In other words, you cannot remediate or cure students' physical and sensory handicaps; they will continue to govern what those students can do. Your instruction, then, must be designed to accommodate those students' learning capabilities. If a student is visually impaired, for example, that limitation can be accommodated by never relying solely on visuals in your lessons.

Typical instructional accommodations that need to be made when you are working with exceptional students are use of or increased use of (1) concrete activities; (2) simplified activities; (3) multisensory, multimedia approaches; and (4) bilingual peers.

Concrete Activities

Students whose exceptional needs (e.g., mental retardation, educationally impoverished backgrounds) are such that they are slower learners will generally benefit from activities that are as real and concrete as possible. Abstract concepts are usually hard for these students to grasp. Manipulative skill demonstrations and hands-on activities using actual objects and equipment (e.g., laboratory work, projects) can increase both the ability of these students to learn and the rate at which they learn.

Since these types of activities are a normal part of the vocational curriculum, this should present no problems. What may be necessary, however, is to **increase** your use of these activities, at least with those students who need them. Your objective should be to provide these students with the most real activity possible.

A manipulative skill **demonstration** on how to use a piece of equipment should work well, at least as a first step. These students may, however, need to be able to **review** the demonstration one or more times in order to master the skill. In keeping with the idea of providing concrete activities, it may not be helpful simply to review the steps orally with the students. They need to **see** it again.

This can be accomplished in any number of ways. You can videotape the demonstration so students can view it later as often as needed. If your school has an active, well-funded media department, you could record the demonstration steps on slide/tape or 8-mm film loop. Or such media may be available commercially. A less sophisticated but effective alternative is to give students a simple handout illustrating and explaining each step of the manipulative skill.

Once again, although you are preparing these instructional supplements specifically to meet the needs of your exceptional students, remember that they can and will be used by other students also. You are not doing "extra work for just one or two students." You are expanding your instructional options to the potential benefit of all. The student, for example, who was absent during your demonstration can also benefit from the videotaped demonstration you made.

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Following demonstrations, it is standard to provide students with an opportunity to **practice and apply** the skill. This kind of hands-on activity is very effective for slower learners. It is very important, however, to ensure that the tools and equipment you use in the demonstration and the students use in the laboratory are the most up to date possible. They should be those that the students will use on the job.

Think, for example, of a slower student you are training to use a simple word processor, which consists of an electric typewriter and an attached unit that stores information on magnetic cards. You cannot assume that he or she can transfer that skill to a different or more sophisticated word processor. These students tend to learn specifics (how to operate a particular machine), not general principles with which they can master similar machines. You'll need to help such a student apply his/her skills to other machines.

Consider also a presentation in which you point to the parts of a word processor, identify each by name, and explain what each part does. For some students in your class, who can relate their previous experience in working with other equipment to this new equipment, such a presentation may be enough. The slower student, however, will probably need to actually work with the machine, seeing what happens as each button is pushed.

Bear in mind that most of us learn best and most quickly by actually trying things out. The point here is that the "average" learner can manage, usually, with presentation followed later by practice. For the slower student, however, it is essential that the hands-on experience occur during the initial presentation for him/her to grasp the subject.

When working with actual objects is not possible, you will need to devise **activities that approximate reality**: simulations, role-plays, media, visuals. An in-class presentation on tractor maintenance, for example, could be supplemented with visuals or media showing pictures of actual tractors and their parts. They are not real, but they may be the next best thing.

Similarly, instruction on customer contacts can be supplemented with role-plays in which students get a feel for working with, for example, a displeased customer. Instruction on the use of a cash register can be supplemented by student use of this machine in a simulated store setting. Once again, these are techniques often used in vocational classes, which work for all students, but which are essential for slower students.

Another type of real activity that may be required for exceptional students is **exposure to the real world of work**. Some of these students may have a very unrealistic view of the work place and what goes on there. Consider, for instance, the retarded student or the student who lives in a neighborhood in which few people are gainfully employed. These students may have developed a view of work entirely from what they have seen on television—where bank tellers are involved in exciting robberies, socialize a lot with their co-workers and never do any tedious, repetitive tasks.

Such students need exposure to the realities of work. Since they learn best not from presentations but from actual contact, you need to arrange, insofar as possible, to place them in actual job situations: through carefully planned and structured field trips, job-site visits, and on-the-job training.[5]

Simplified Activities

Instruction designed to accommodate the needs of a student who learns more slowly in a particular area may also need to be simplified. This can be accomplished by changing the **level** or the **pace**.

Some materials, for example, may need to be rewritten at a lower reading level. Some materials, written at the appropriate reading level, may need to be adapted to supplement instruction.[6] The steps in your manipulative skill demonstration, for example, may need to be broken down even further. Instead of simply telling students to multiply such and such, you may have to go through each step of the multiplication process, leaving nothing to chance, making no assumptions.

5. To gain skill in providing students with exposure to the real world of work, you may wish to refer to Module L-12, *Prepare Exceptional Students for Employability*.

6. To gain skill in developing simplified materials, you may wish to refer to Module L-4, *Provide Appropriate Instructional Materials for Exceptional Students*.

Pace can also be changed simply by going through instruction more slowly. You can slow down the speed at which you demonstrate skills and present information, watching students' faces to determine whether they are staying with you. You can stop a film periodically to allow students to assimilate the information in smaller doses. During each break, you can review what has been shown thus far and ask questions to be sure students have absorbed that much and are ready to go on.

Similarly, you can show a slide presentation more slowly, providing a more simplified and detailed explanation of each slide. This allows students time to comprehend each piece of information, one at a time. Slides, films, demonstrations, and oral presentations can even be completely divided into smaller parts and presented, a part at a time, over a period of days.

Multisensory, Multimedia Approaches

In order to accommodate the needs of students who have sensory or physical handicaps, you must use techniques that allow them to learn through the senses they do have. In other words, you must use multisensory, multimedia approaches. Again, such approaches can only serve to benefit **all** students.

Assume, for example, that you have in your class a student who is visually impaired and a student who is hearing impaired and can read lips. You would of course place these students near the front of the class to minimize their limitations, but that is not enough.

If your presentation is entirely oral, how can the hearing-impaired student take notes? If he/she looks down to take notes, the lipreading ceases. Supplementing your lecture with handouts can solve that problem. Showing a film will be of little value to this student if he or she cannot hear the narrative. The information provided in the film should be made available to the student through another medium, perhaps a textbook, a captioned slide presentation, or a script of the film.

Heavy reliance on visuals will be inappropriate for the visually impaired student. This student needs a great deal of oral instruction. If you show an important illustration in class, you need to supplement the visual, perhaps with an oral explanation so that the visually impaired student, too, can "see" the illustration.

In other words, you need to ensure that your instruction includes and is supplemented by a variety of media targeted to several senses in order for all students to receive the same information. The slower learner will benefit from the opportunity to learn by seeing, hearing, and touching, as will the so-called "average" student.

Bilingual Peers and Others

Another way to supplement and enhance instruction to meet the needs of exceptional students is to use individuals who can communicate using the most appropriate communication mode for these students. If you have a number of hearing-impaired students, for example, and if your school has the resources available, a person skilled in American sign language could be available during your major presentations to interpret the presentation into sign language as it is presented.

Similarly, students who are bilingual could be used—within reason—to work with students with limited English proficiency. For example, following a major presentation, the bilingual student could (with preparation) conduct a small-group review of the information. He/she could ensure, through the use of students' native language, that the information was clearly understood. This approach has value in that the primary source of information is in English—the language students will need in the world of work. Yet it acknowledges the limits of students' language development and provides the additional help needed.

Bilingual students could also be called on during a presentation or demonstration if a problem arises. If, for example, a key point is not understood by the student with limited English proficiency, a brief explanation in that student's native language can move the lesson along with the minimum effort and time.

This approach is not limited to students whose native language is not English, either. Many English-speaking students speak dialects or nonstandard English, which hinders their ability to understand standard English. Students who understand both nonstandard and standard English can also help you communicate instructional content effectively.[7]

7. To gain skill in identifying barriers to communication, you may wish to refer to Module L-8, *Improve Your Communication Skills*.

Acceleration Techniques

Students who are advanced or learn rapidly—the gifted, talented, or those whose previous life and work experiences give them a head start—also need special attention. They need to be challenged to achieve all that they are capable of. They need activities to match the accelerated rates and levels of learning each can handle.

However, do not make the mistake of assuming that accelerated means unstructured. Even though these students may sometimes be working independently, their efforts require structure. Too often, independent work is less productive than it could be because students are left to flounder randomly. The gifted are just as capable as anyone else of procrastinating if they lack specific direction. And how do you and the student evaluate progress if there is no set goal?

Therefore, these students need to be exposed to the components of creative thought and the skills of divergent thinking. They need to learn to solve problems rationally and creatively and how to use that skill to design and conduct an independent study activity. They need to develop their leadership skills. Some of these skills can be developed in class; however, outside activities may be required to fully meet their needs.

Creative Problem-Solving Skills

By requiring these students to attack problems in the classroom, you can increase their problem-solving skills on a number of levels. The problems themselves can become increasingly more difficult. For exceptionally gifted/talented students, the problem to be solved may have no known solution. The problems may be designed to require students to discover, on their own, the general principles or other information that is part of the curriculum or to go beyond the curriculum. The solutions desired may be straightforward and prescribed initially; later they may be more creative. The use of case studies, troubleshooting techniques, discovery techniques, diagnostic techniques, or inquiry approaches could all be effective in helping these students develop their problem-solving skills.

Problem solving is a normal activity in the vocational class. Students are taught the steps in the problem-solving process (i.e., define the problem clearly, identify the relevant factors, gather the needed information, examine possible solutions, select tentative or alternative solutions, test the proposed solutions, and assess the results). They are then asked throughout the program or course to solve problems using this process: problems described in case studies, simulated problems, and actual problems.

For example, an agriculture student may need to solve a written case study problem involving what to feed livestock. An auto mechanics student may need to be able to diagnose/troubleshoot the problem of a car's engine, either a problem created by the teacher or one in a car brought in from the outside for repair. A culinary arts student may need to be able to taste the bouillabaisse and identify the missing ingredient.

By involving all students in these kinds of activities, you are providing the basis that accelerated students need in order to attack more difficult problems. The problem-solving process works equally well regardless of the difficulty of the problem.

Your task, then, is to provide **problems of increasing difficulty**. You may develop special case studies for these students to cover the normal class work, with more subtle clues provided. The malfunction you build into the car's engine, for example, may be a little more difficult to identify or locate.

Easier still, jobs involving outside work are likely to have built-in problems at a more difficult level. The very talented cosmetology student can be assigned the customer with the problem hair (overbleaching or an irrepressible cowlick). The talented agriculture mechanics student can be asked to deal with a complicated problem on the program's tractor.

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These are one-solution problems, but students can also learn to go beyond this level to creative problem solving involving solutions that depart from the "norm." This means that when students get to step four of the problem-solving process—identify solutions—they are being asked to go beyond the usually prescribed solution and to create new solutions. They can invent, for example, an improved tool, a tantalizing new recipe, a novel dress design, a stylish new hair design, an improved filing system—all in response to a problem situation.

There are built-in motivations to such activities. They can be great fun for both you and the student. You will be surprised how invigorating it can be to create such problems for students. It can spark your creativity as well as that of the students. And the student who has invented a new, usable product or design or menu will feel an enormous sense of pride and accomplishment, hard to duplicate through any other activity.

Your role in this process is to devise or provide the problems to be solved, ensuring that students can freely create, invent, and devise solutions without danger to themselves or others. By providing these problems regularly for students to attack individually or in small groups, you can help them learn to (1) "leave the beaten path" and develop solutions that are inventive and original and (2) adapt existing solutions to fit other uses—in other words to think creatively and divergently.

Independent Study

Independent study should be a natural extension of the kinds of problem solving described in the previous section. There, the problems were teacher-devised. Here, the student can identify and attempt to solve a problem of his/her own choosing.

To help students structure these activities, you could start by providing **a list of prospective topics**. Students can then select a topic from the list, use those topics to help them think of one of their own, or select a totally original topic with your approval.

It is then important to have each student **plan**, in writing, the limits of the independent study or research project. This plan needs to include a clear statement of the problem to be solved, the activities to be completed, and the final outcome to be produced (e.g., a product, an oral report, or a research report). Such a plan allows the student to stretch his/her creative wings within a structure. His/her goals are clear, but the solution is yet to be discovered. The plan can also include target dates to aid the student in maintaining forward progress. Such a plan can also take the form of a contract in which the student agrees to complete a certain scope of work for a certain amount of credit or for a certain grade.

Leadership Skills

Students with advanced skills may be qualified for leadership positions on the basis of those skills. But they may be reluctant to take on such responsibilities or may lack the interpersonal skills required to serve in such roles. Some accelerated students have been isolated from their peers because of their supposed "differences." They do not, therefore, want to increase that isolation by being singled out by the teacher for leadership roles. Other gifted/talented students may be so advanced in their own special interest areas that they have a hard time understanding the difficulties experienced by others.

This does not mean that they shouldn't be considered for or encouraged to pursue leadership roles. You as a teacher can do two things to help. First, you can **create an environment** in which all students have opportunity for leadership positions at some level. All students, for example, get a turn at serving as shop supervisor for limited periods of time or at chairing a committee. Thus, the accelerated student is not set apart as different—as the only one capable of leadership.

Second, you can provide **training for leadership**. This training may be a normal part of the vocational student organization activities. In that case, you need only encourage the accelerated student to take advantage of this training. As a result of this training and reinforcement—as part of a group—the accelerated student may easily decide to seek a leadership role—one which he/she might have refused or resented had it been assigned by the teacher.

The most obvious in-class leadership role you might select for accelerated students is that of tutor or teaching assistant. All of the previous guidelines ap-

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ply here. You certainly would be justified in having these students serve in these roles; their occupational skills may be excellent.

However, you need to provide all qualified students with an opportunity to serve as tutors or teaching assistants. You need to ensure that these are occasional roles—that these duties do not interfere with a student's own education.

Finally, you need to provide these students with adequate training to be effective tutors and teaching assistants. Knowing how to do something yourself does not mean you can explain to someone else. This may be especially true for the student who seems to learn effortlessly. In some cases, that student may have trouble spotting another student's problem area. Thus, training is required to help these students successfully instruct other students.

Outside Activities

Opportunities for challenge are also available through outside resources. You can help by identifying these opportunities and informing students about them. You can also offer support, encouragement, and reinforcement when students do participate.

This may not always be quite as simple as it sounds. It requires a strong self-concept—on the teacher's part—to accept that a student is accomplishing things at, perhaps, a higher level than the teacher. You also need to expand your thinking beyond vocational education, per se, to identify these opportunities.

In terms of occupational skills, you could help really accelerated students locate such opportunities for advanced training or practice as the following:

- Classes offered in adult evening education programs or at local two- or four-year educational institutions
- On-the-job training through mentorships, internships, or shadowing ("following" an employee around and observing what his/her job involves)
- Involvement in community programs or projects that require the student to apply and expand his/her occupational skills

You can also help students locate challenges outside vocational education per se—challenges that nonetheless help the student occupationally. For example, you might identify such opportunities as the following:

- Leadership training programs
- Programs designed to increase interpersonal skills
- Clubs devoted to problem solving, debate, science fiction, futurism, or similar thought-provoking endeavors
- Local, state, and national competitions that encourage creativity (e.g., contests sponsored by junior MENSA [a club for people with high IQs], creative problem-solving contests, essay-writing contests, speaking competitions, design competitions)

In short, by identifying and making use of the many techniques, materials, and other resources available to you as a teacher, you can provide good instruction to any student, whether that student needs remediation, accommodation, acceleration, or "regular" instruction. Good instruction isn't necessarily expensive. It just requires attention to individuals and their individual needs.

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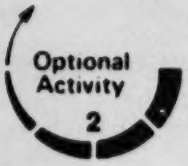

In order to increase your awareness of the range and types of specialists and special services typically available to students with various exceptional needs, you may wish to (1) identify what resources of this type are available in your present geographic area and (2) compile a list of these resources.

You could check with guidance staff or student services staff at a local school and with service agencies in the community. Don't neglect the Yellow Pages of the phone book as a resource in locating potential services.

NOTE: Before making contacts, check with your resource person. If a large number of people are working on this module, it is important that local schools and other agencies not be deluged by individuals all asking the same questions.

If you are an inservice teacher or a preservice teacher who knows where you will be teaching, you may wish to start work on a job-site resource packet. Included in this packet could be one or more of the following:

- A list of appropriate job sites that you have identified locally
- Additional information concerning each job site (e.g., special features of the site, contact persons)

If you are interested in learning more about how to develop students' creativity and ability to think divergently, you may wish to read one or more supplementary references. You could locate these references by checking the library for works by the following four leading authors in this area: Sidney J. Parnes, Carl R. Rogers, E. Paul Torrance, and Frank E. Williams.

The focus of many of these references is on the elementary education level, since that is where much of work in this area has been done. However, the principles are the same for the secondary or postsecondary level, and many of the activities could be easily adapted to your vocational classroom. Many references also contain a bibliography listing other references you may wish to read.

You may wish to arrange through your resource person to visit a special education, remedial, and/or accelerated class. By observing such classes, you may be able to identify additional techniques that could be used or adapted for use in your own classes with your own exceptional students.

Each of the following case situations describes the exceptional needs of a given student. Read each situation and then **describe in writing** what instructional techniques and activities would be appropriate to meet that student's needs.

CASE SITUATIONS

1. Matilda is an extremely bright and talented student, with a real aptitude for the skills she is learning. English is, however, her second language. Consequently she sometimes can't keep up with a complicated presentation or demonstration.

2. Roger is mentally retarded. In an attempt to meet Roger's needs, his teacher selected a 50-minute film, which covered the necessary information using very simple visuals and simple explanations. However, when the teacher questioned Roger later, it became clear that Roger had learned very little from the film.

3. Maureen is considered gifted, but she finds this a burden. All she really wants is to be one of the girls. She has discovered that some of the students will accept her if she gives the teacher a hard time. With her quick mind and verbal skill, this is easy.

4. Marguerite is progressively losing her sight. She can still see the chalkboard but it is a continual strain for her.

5. Manuel is a third-generation American and is bilingual, speaking both English and Spanish fluently. He is an average student in some areas such as math, but when it comes to working on automobile transmissions, he is way ahead of his teacher.

6. Ruth is mentally retarded. She achieved well in business class and was placed on the job through a co-op program. Her evaluations on the job are not promising, however. Her on-the-job instructor reports that she cannot use the adding machine, although you know full well that she passed the competency test covering that skill in class.

7. George has been totally deaf since birth, but his parents have sheltered him from the possible cruelties of the real world and have provided him with the best teachers of the deaf. George signs and reads lips fluently.

8. Clyde comes from a low-income family in the inner city. He is a good student and is determined to earn lots of money. He doesn't want to start at the bottom of the employment ladder. He figures that, with his skills and drive, he can start at the top—or pretty close to it.

9. Mario loves food. He loves to eat exotic dishes at gourmet restaurants. Consequently, he has decided to become a cook. Mario is the first male to enroll in this teacher's class, and she is glad that the barriers are breaking down. Mario is very excited and can't wait to get going. Since his mother has never let him in "her" kitchen, his interest has been previously frustrated.

10. Candy is mentally retarded and has a low reading level. The teacher has been providing her with special materials, geared to this level, but Candy still can't seem to grasp anything given to her in written form.

Compare your written responses to the case situations with the model responses given below. Your responses need not exactly duplicate the model responses; however, you should have covered the same **major** points.

MODEL RESPONSES

1. Matilda needs both accommodation and remediation. By being referred to an ESL teacher or remedial reading teacher, she can eventually hope to master English. Right now, however, she needs help in dealing with the complicated presentations and demonstrations.

   One technique to use would be to uncomplicate them by presenting them in smaller doses or more slowly or more simply. Another option would be to supplement each presentation with handouts, covering the same material, that Matilda can review using all the time she needs. A bilingual peer could also be used to assist Matilda by explaining really complicated parts in Matilda's native language.

2. Roger's problem is, in all likelihood, not the level of the film but its length. Asking him to absorb 50 minutes' worth of information is unrealistic. Roger needs to be provided with this information a little at a time. This could be done with short presentations, mini-demonstrations, brief media presentations (e.g., film loops), concrete activities, or simple written materials. If, however, the film is the best medium, logical stopping points in the film should be identified, and then it should be presented in small sections.

3. Maureen's problem is now a behavior problem, which is disrupting instruction. She may, of course, need your help in dealing with what she considers to be her problem: her giftedness, which is isolating her from her peers. She may need counseling. She needs help in gaining her peers' acceptance.

   However, the instructional problem that needs to be solved immediately is her behavior. A behavior contract could be effective in this case, helping Maureen identify in the contract both unacceptable behaviors and behaviors she could implement to attempt to achieve her own goal of acceptance.

4. To ensure that Marguerite has the full benefit of the instruction provided, without being forced to strain continually to get it, more emphasis needs to be placed on instruction that is oral in nature. Visuals need to be described. Written materials need to be available in large-type texts or on audiotape whenever possible.

5. Manuel's strengths can be tapped—within reason. He can be asked to tutor students with limited English proficiency whose native language is Spanish. He can translate a word or idea during class if there is a communication breakdown. He can be asked to tutor or serve as a teaching assistant when the topic is transmissions.

   He can also be encouraged to pursue his special interest in transmissions by enrolling in an outside course, serving an internship with a transmission specialist, or doing an independent study to create an improved transmission design. He can be given difficult troubleshooting assignments involving transmissions.

   However, his skill with transmissions should not be allowed to obscure the fact that in other areas, such as math, he needs to receive "regular" instruction.

6. Perhaps Ruth forgot all she learned and needs remediation. More likely, however, she learned on one type of machine and is now being asked to use a different type. Ruth probably can't apply what she knows to the new machine.

   To prevent this from happening, students like Ruth need to be taught to use the actual machines they will be asked to use on the job. In this case, the teacher and the on-the-job instructor will need to teach Ruth how to use that specific adding machine before they can expect her to use it successfully.

7. Since George reads lips fluently, many instructional problems are minimized as long as the teacher ensures that George can see his/her face. Instruction can also be supplemented with increased use of visuals and written materials. Additionally, since George has been sheltered, he may need to participate in activities that expose him to the real world of work (e.g., job-site visitations or field trips).

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8. Clyde definitely needs exposure to the work world to get a more realistic picture of his qualifications at this point. Job-site visitations or field trips should help. Even better would be some on-the-job experience—through a co-op program, for example—by which he can get an accurate idea of how much he is capable of at present. Being able to shadow a "person at the top" for a brief period might also help him to set more realistic goals.
9. Mario has never been allowed in the kitchen. This teacher needs to be alert to this fact because it is very likely that Mario doesn't know a simmer from a broil or a teaspoon from a tablespoon. Some remedial help may be needed to provide Mario with the information that is usually assumed to be common knowledge for new students in this class.
10. Candy needs remedial help from a reading specialist. In the meantime, however, audio materials, oral explanations, and assistance from peers could be used to help Candy continue to progress vocationally.

Level of Performance: Your written responses to the case situations should have covered the same **major** points as the model responses. If you missed some points or have questions about any additional points you made, review the information sheet, Remediation, Accommodation, and Acceleration, pp. 21–29, or check with your resource person if necessary.

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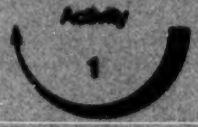
Learning Experience III

FINAL EXPERIENCE

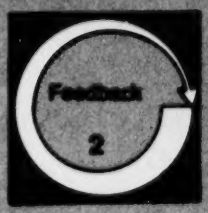
In an actual teaching situation,* use instructional techniques to meet the needs of exceptional students.



As part of your duties as a teacher, use instructional techniques to meet the needs of exceptional students. This will include—

- basing the selection of techniques on the general principles of good teaching
- individualizing instruction as much as possible
- providing reinforcement
- using specific activities for the purposes of remediation and acceleration and to accommodate a variety of student needs.

NOTE: As you complete each of the above activities, document your actions (in writing, on tape, through a log) for assessment purposes.



Arrange in advance to have your resource person review your documentation and observe at least one classroom or laboratory session in which you are using instructional techniques to meet the needs of exceptional students.

Your total competency will be assessed by your resource person, using the Teacher Performance Assessment Form, pp. 39–40.

Based upon the criteria specified in this assessment instrument, your resource person will determine whether you are competent in using instructional techniques to meet the needs of exceptional students.

*For a definition of "actual teaching situation," see the inside back cover.

NOTES

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TEACHER PERFORMANCE ASSESSMENT FORM

Use Instructional Techniques to Meet the Needs of Exceptional Students (L-7)

Name _____

Date _____

Resource Person _____

Directions: Indicate the level of the teacher's accomplishment by placing an X in the appropriate box under the LEVEL OF PERFORMANCE heading. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A box.

	LEVEL OF PERFORMANCE					
	N/A	None	Poor	Fair	Good	Excellent
In selecting techniques that were consistent with the general principles of good teaching, the teacher:						
1. employed a variety of instructional techniques to meet learning styles and maintain interest	☐	☐	☐	☐	☐	☐
2. paced activities to meet students' needs	☐	☐	☐	☐	☐	☐
3. ensured that students were continually involved in relevant instruction	☐	☐	☐	☐	☐	☐
4. provided students with opportunities to develop a sense of pride and responsibility in their work	☐	☐	☐	☐	☐	☐
5. treated all students consistently and fairly	☐	☐	☐	☐	☐	☐
6. oriented students to the classroom, procedures, and instructional expectations	☐	☐	☐	☐	☐	☐
7. facilitated group interaction through large-group and small-group discussion	☐	☐	☐	☐	☐	☐
8. used a team approach, involving other specialists	☐	☐	☐	☐	☐	☐
9. involved exceptional students fully in vocational student organization activities	☐	☐	☐	☐	☐	☐
In individualizing instruction, the teacher:						
10. made use of one or more of the following techniques:						
a. individualized learning packages	☐	☐	☐	☐	☐	☐
b. case studies	☐	☐	☐	☐	☐	☐
c. self-paced multimedia instructional systems	☐	☐	☐	☐	☐	☐
d. computer-assisted instruction	☐	☐	☐	☐	☐	☐
e. the "buddy system"	☐	☐	☐	☐	☐	☐

	N/A	None	Poor	Fair	Good	Excellent
In providing reinforcement, the teacher:						
11. made adequate use of role models	☐	☐	☐	☐	☐	☐
12. provided frequent positive reinforcement (praise and opportunities for success experiences)	☐	☐	☐	☐	☐	☐
13. provided frequent feedback	☐	☐	☐	☐	☐	☐
14. created a nonthreatening atmosphere	☐	☐	☐	☐	☐	☐
In providing instruction, the teacher:						
15. used specific remediation activities, including:						
a. in-class remedial instruction provided by the teacher, peers, or instructional resources and materials	☐	☐	☐	☐	☐	☐
b. special outside assignments	☐	☐	☐	☐	☐	☐
c. referral to special remedial classes or provision of tutoring	☐	☐	☐	☐	☐	☐
16. used specific activities to accommodate a variety of student needs, including:						
a. concrete, practical, real, hands-on activities	☐	☐	☐	☐	☐	☐
b. simplified instruction	☐	☐	☐	☐	☐	☐
c. multisensory, multimedia approaches	☐	☐	☐	☐	☐	☐
d. use of bilingual peers, signers, etc.	☐	☐	☐	☐	☐	☐
17. used specific acceleration activities, including:						
a. activities designed to develop students' creativity	☐	☐	☐	☐	☐	☐
b. activities designed to increase students' problem-solving skills	☐	☐	☐	☐	☐	☐
c. activities designed to develop students' leadership skills	☐	☐	☐	☐	☐	☐
d. independent study	☐	☐	☐	☐	☐	☐
e. referral to outside resources (e.g., adult education programs, on-the-job mentorships)	☐	☐	☐	☐	☐	☐

Level of Performance: All items must receive N/A, GOOD, or EXCELLENT responses. If any item receives a NONE, POOR, or FAIR response, the teacher and resource person should meet to determine what additional activities the teacher needs to complete in order to reach competency in the weak area(s).

ABOUT USING THE NATIONAL CENTER'S PBTE MODULES

Organization

Each module is designed to help you gain competency in a particular skill area considered important to teaching success. A module is made up of a series of learning experiences, some providing background information, some providing practice experiences, and others combining these two functions. Completing these experiences should **enable** you to achieve the **terminal** objective in the final learning experience. The final experience in each module always requires you to demonstrate the skill in an actual teaching situation when you are an intern, a student teacher, an inservice teacher, or occupational trainer.

Procedures

Modules are designed to allow you to individualize your teacher education program. You need to take only those modules covering skills that you do not already possess. Similarly, you need not complete any learning experience within a module if you already have the skill needed to complete it. Therefore, before taking any module, you should carefully review (1) the introduction, (2) the objectives listed on p. 4, (3) the overviews preceding each learning experience, and (4) the final experience. After comparing your present needs and competencies with the information you have read in these sections, you should be ready to make one of the following decisions:

- That you do not have the competencies indicated and should complete the entire module
- That you are competent in one or more of the enabling objectives leading to the final learning experience and, thus, can omit those learning experiences
- That you are already competent in this area and are ready to complete the final learning experience in order to "test out"
- That the module is inappropriate to your needs at this time

When you are ready to complete the final learning experience **and** have access to an actual teaching situation, make the necessary arrangements with your resource person. If you do not complete the final experience successfully, meet with your resource person and arrange to (1) repeat the experience or (2) complete (or review) previous sections of the module or other related activities suggested by your resource person before attempting to repeat the final experience.

Options for recycling are also available in each of the learning experiences preceding the final experience. Any time you do not meet the minimum level of performance required to meet an objective, you and your resource person may meet to select activities to help you reach competency. This could involve (1) completing parts of the module previously skipped, (2) repeating activities, (3) reading supplementary resources or completing additional activities suggested by the resource person, (4) designing your own learning experience, or (5) completing some other activity suggested by you or your resource person.

Terminology

Actual Teaching Situation: A situation in which you are actually working with and responsible for teaching secondary or postsecondary vocational students or other occupational trainees. An intern, a student teacher, an inservice teacher, or other occupational trainer would be functioning in an actual teaching situation. If you do **not** have access to an actual teaching situation when you are taking the module, you can complete the module **up to** the final learning experience. You would then complete the final learning experience later (i.e., when you have access to an actual teaching situation).

Alternate Activity or Feedback: An item that may **substitute** for required items that, due to special circumstances, you are unable to complete.

Occupational Specialty: A specific area of preparation within a vocational service area (e.g., the service area Trade and Industrial Education includes occupational specialties such as automobile mechanics, welding, and electricity).

Optional Activity or Feedback: An item that is not required but that is designed to **supplement** and enrich the required items in a learning experience.

Resource Person: The person in charge of your educational program (e.g., the professor, instructor, administrator, instructional supervisor, cooperating/supervising/classroom teacher, or training supervisor who is guiding you in completing this module).

Student: The person who is receiving occupational instruction in a secondary, postsecondary, or other training program.

Vocational Service Area: A major vocational field: agricultural education, business and office education, marketing and distributive education, health occupations education, home economics education, industrial arts education, technical education, or trade and industrial education.

You or the Teacher/Instructor: The person who is completing the module.

Levels of Performance for Final Assessment

N/A: The criterion was not met because it was **not applicable** to the situation.

None: No attempt was made to meet the criterion, although it was relevant.

Poor: The teacher is unable to perform this skill or has only **very limited ability** to perform it.

Fair: The teacher is unable to perform this skill in an acceptable manner but has **some ability** to perform it.

Good: The teacher is able to perform this skill in an **effective** manner.

Excellent: The teacher is able to perform this skill in a **very effective** manner.

Titles of the National Center's Performance-Based Teacher Education Modules

Category A: Program Planning, Development, and Evaluation

- A-1 Prepare for a Community Survey
- A-2 Conduct a Community Survey
- A-3 Report the Findings of a Community Survey
- A-4 Organize an Occupational Advisory Committee
- A-5 Maintain an Occupational Advisory Committee
- A-6 Develop Program Goals and Objectives
- A-7 Conduct an Occupational Analysis
- A-8 Develop a Course of Study
- A-9 Develop Long-Range Program Plans
- A-10 Conduct a Student Follow-Up Study
- A-11 Evaluate Your Vocational Program

Category B: Instructional Planning

- B-1 Determine Needs and Interests of Students
- B-2 Develop Student Performance Objectives
- B-3 Develop a Unit of Instruction
- B-4 Develop a Lesson Plan
- B-5 Select Student Instructional Materials
- B-6 Prepare Teacher-Made Instructional Materials

Category C: Instructional Execution

- C-1 Direct Field Trips
- C-2 Conduct Group Discussions, Panel Discussions, and Symposiums
- C-3 Employ Brainstorming, Buzz Group, and Question Box Techniques
- C-4 Direct Students in Instructing Other Students
- C-5 Employ Simulation Techniques
- C-6 Guide Student Study
- C-7 Direct Student Laboratory Experience
- C-8 Direct Students in Applying Problem-Solving Techniques
- C-9 Employ the Project Method
- C-10 Introduce a Lesson
- C-11 Summarize a Lesson
- C-12 Employ Oral Questioning Techniques
- C-13 Employ Reinforcement Techniques
- C-14 Provide Instruction for Slower and More Capable Learners
- C-15 Present an Illustrated Talk
- C-16 Demonstrate a Manipulative Skill
- C-17 Demonstrate a Concept or Principle
- C-18 Individualize Instruction
- C-19 Employ the Team Teaching Approach
- C-20 Use Subject Matter Experts to Present Information
- C-21 Prepare Bulletin Boards and Exhibits
- C-22 Present Information with Models, Real Objects, and Flannel Boards
- C-23 Present Information with Overhead and Opaque Materials
- C-24 Present Information with Filmstrips and Slides
- C-25 Present Information with Films
- C-26 Present Information with Audio Recordings
- C-27 Present Information with Televised and Videotaped Materials
- C-28 Employ Programmed Instruction
- C-29 Present Information with the Chalkboard and Flip Chart
- C-30 Provide for Students' Learning Styles

Category D: Instructional Evaluation

- D-1 Establish Student Performance Criteria
- D-2 Assess Student Performance: Knowledge
- D-3 Assess Student Performance: Attitudes
- D-4 Assess Student Performance: Skills
- D-5 Determine Student Grades
- D-6 Evaluate Your Instructional Effectiveness

Category E: Instructional Management

- E-1 Project Instructional Resource Needs
- E-2 Manage Your Budgeting and Reporting Responsibilities
- E-3 Arrange for Improvement of Your Vocational Facilities
- E-4 Maintain a Filing System
- E-5 Provide for Student Safety
- E-6 Provide for the First Aid Needs of Students
- E-7 Assist Students in Developing Self-Discipline
- E-8 Organize the Vocational Laboratory
- E-9 Manage the Vocational Laboratory
- E-10 Combat Problems of Student Chemical Use

Category F: Guidance

- F-1 Gather Student Data Using Formal Data-Collection Techniques
- F-2 Gather Student Data Through Personal Contacts
- F-3 Use Conferences to Help Meet Student Needs
- F-4 Provide Information on Educational and Career Opportunities
- F-5 Assist Students in Applying for Employment or Further Education

Category G: School–Community Relations

- G-1 Develop a School–Community Relations Plan for Your Vocational Program
- G-2 Give Presentations to Promote Your Vocational Program
- G-3 Develop Brochures to Promote Your Vocational Program
- G-4 Prepare Displays to Promote Your Vocational Program
- G-5 Prepare News Releases and Articles Concerning Your Vocational Program
- G-6 Arrange for Television and Radio Presentations Concerning Your Vocational Program
- G-7 Conduct an Open House
- G-8 Work with Members of the Community
- G-9 Work with State and Local Educators
- G-10 Obtain Feedback about Your Vocational Program

Category H: Vocational Student Organization

- H-1 Develop a Personal Philosophy Concerning Vocational Student Organizations
- H-2 Establish a Vocational Student Organization
- H-3 Prepare Vocational Student Organization Members for Leadership Roles
- H-4 Assist Vocational Student Organization Members in Developing and Financing a Yearly Program of Activities
- H-5 Supervise Activities of the Vocational Student Organization
- H-6 Guide Participation in Vocational Student Organization Contests

Category I: Professional Role and Development

- I-1 Keep Up to Date Professionally
- I-2 Serve Your Teaching Profession
- I-3 Develop an Active Personal Philosophy of Education
- I-4 Serve the School and Community
- I-5 Obtain a Suitable Teaching Position
- I-6 Provide Laboratory Experiences for Prospective Teachers
- I-7 Plan the Student Teaching Experience
- I-8 Supervise Student Teachers

Category J: Coordination of Cooperative Education

- J-1 Establish Guidelines for Your Cooperative Vocational Program
- J-2 Manage the Attendance, Transfers, and Terminations of Co-Op Students
- J-3 Enroll Students in Your Co-Op Program
- J-4 Secure Training Stations for Your Co-Op Program
- J-5 Place Co-Op Students on the Job
- J-6 Develop the Training Ability of On-the-Job Instructors
- J-7 Coordinate On-the-Job Instruction
- J-8 Evaluate Co-Op Students' On-the-Job Performance
- J-9 Prepare for Students' Related Instruction
- J-10 Supervise an Employer–Employee Appreciation Event

Category K: Implementing Competency-Based Education (CBE)

- K-1 Prepare Yourself for CBE
- K-2 Organize the Content for a CBE Program
- K-3 Organize Your Class and Lab to Install CBE
- K-4 Provide Instructional Materials for CBE
- K-5 Manage the Daily Routines of Your CBE Program
- K-6 Guide Your Students Through the CBE Program

Category L: Serving Students with Special/Exceptional Needs

- L-1 Prepare Yourself to Serve Exceptional Students
- L-2 Identify and Diagnose Exceptional Students
- L-3 Plan Instruction for Exceptional Students
- L-4 Provide Appropriate Instructional Materials for Exceptional Students
- L-5 Modify the Learning Environment for Exceptional Students
- L-6 Promote Peer Acceptance of Exceptional Students
- L-7 Use Instructional Techniques to Meet the Needs of Exceptional Students
- L-8 Improve Your Communication Skills
- L-9 Assess the Progress of Exceptional Students
- L-10 Counsel Exceptional Students with Personal–Social Problems
- L-11 Assist Exceptional Students in Developing Career Planning Skills
- L-12 Prepare Exceptional Students for Employability
- L-13 Promote Your Vocational Program with Exceptional Students

Category M: Assisting Students in Improving Their Basic Skills

- M-1 Assist Students in Achieving Basic Reading Skills
- M-2 Assist Students in Developing Technical Reading Skills
- M-3 Assist Students in Improving Their Writing Skills
- M-4 Assist Students in Improving Their Oral Communication Skills
- M-5 Assist Students in Improving Their Math Skills
- M-6 Assist Students in Improving Their Survival Skills

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